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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/565,075	01/18/2006	Takeshi Koda	8048-1139	3697

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EXAMINER	
PENDLETON, DIONNE	
ART UNIT	PAPER NUMBER
2627	

NOTIFICATION DATE	DELIVERY MODE
05/13/2010	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

DocketingDept@young-thompson.com

Office Action Summary	Application No.	Applicant(s)	
	10/565,075	KODA ET AL.	
	Examiner	Art Unit	
	DIONNE H. PENDLETON	2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 February 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *17-28* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *17-28* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Priority

1. The disclosure of the invention in the parent application (***Provisional application No. 60/469,005)*** provides sufficient support for the features in the later-filed application **(Park-US Pub. No. 2005/0025003),** as are now relied upon as prior art by the Examiner and discussed in the detailed action, below.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. **Claims 17-28** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Park-US Pub. No. 2005/0025003** ***(as supported by Provisional application No. 60/469,005)*** **in view of Hwang et al. - US 2008/0101181** ***(as supported by Provisional application No. 60/472,114)*** and further in view of ***Ito - US Patent No. 2003/0137909..***

Regarding claim 17,

Park teaches a write-once-type recording medium **(page 1)** comprising:

a data area to record therein the record data **(page 4 discloses recording in a replacement cluster instead of a defective cluster. Said "defective cluster" is interpreted as evidence of a data area in the disc of Park)**;

a control information recording area, which includes a definite defect management area to record therein defect management information of said data area, to record therein information for controlling at least one of operations of recording and reading in said data area **(paragraph 1 of page 1, discloses updating a "DMS")**;

and a shared area **("OSA1", in page 4),** to record therein evacuation data which is record data to be recorded at a position of a defect in said data area **(page 4 discloses that a defective clusters is recorded as a replacement cluster)** and to temporarily record therein the defect management information of said data **(page 4 discloses recording the address of a defective cluster in a user control block of the replacement cluster)**, wherein the defect management information includes (i) an evacuation source address which is an address of the position of the defect in the data area**(see "PSN of defective cluster")** and (ii) an evacuation destination address which is an address of a recording position of the evacuation data (**see "PSN of replacement cluster").**

Park fails to expressly teach that the disc structure is such that the shared area is disposed between said control information recording area and said data area.

HWANG teaches that a write-one recording medium may be structured such that the shared area **("SPARE AREA 2" in figures 4 and 6)** is disposed between said

control information recording area **("DMA3" or "DMA4" in figures 4 and 6**) and said data area **("USER DATA AREA" in figures 4 and 6).**

It would have been obvious for one of ordinary skill in the art at the time of the invention to provide a plurality of definite defect management areas, wherein at least one DMA is located at each opposing end of the disc (see, HWANG). Therefore, when recently updated defect management information is recorded in the multiple DMA locations of the disc, the DMA data is better prevented from becoming unusable due to disc defects.

Park, modified by Hwang, fails to teach that the defect management area further includes a start and end address of the data area, and a size of at least one shared area.

ITO teaches, in figure 5, that the defect management area (12) of a disc may include a disc definition structure (20). Ito further teaches that the disc definition structure may include information comprising the size of the shared area, as well as size and address information pertaining to the user data area (see paragraphs [0079], [0102], Figure 7 and Figure 13).

It would have been obvious for one of ordinary skill in the art at the time of the invention to incorporate further data into the DMA of Park, said further data pertaining to the size of the shared area, as well as size and address information related to the user data area, for the purpose of better ensuring the reliability of data detection.

Regarding claim 18,

Park teaches that the evacuation data is continuously recorded and the defect management information is continuously recorded, in the shared area **(page 4 teaches that the evacuation data is recorded in a "replacement cluster", while the defect management information are recorded in "Access blocks" of respective clusters. The repeated recordation of replacement clusters and "Access blocks" when a defective cluster is determined, is interpreted as corresponding to "continuously recorded" as claimed broadly claimed).**

Regarding claim 19,

Park teaches that the evacuation data and defect management information are recorded, repeatedly, a plurality of times, in said shared area **(page 4 discloses that each replacement cluster includes an "access block", which is interpreted as teachings that evacuation data and defect management information are *repeatedly* recorded for each respective defect).**

Regarding claims 20, 23 and 27,

Park teaches a recording apparatus, its associated method of operating, as well as a computer program product for embodying a program of instructions executable by a computer and for a recording apparatus, wherein the apparatus is for recording data onto a write-once-type recording medium **(page 1)** and comprises:

(i) a data area to record therein the record data **(page 4 discloses recording in a replacement cluster instead of a defective cluster. Said "defective cluster" is interpreted as evidence of a data area in the disc of Park)**;

(ii) a control information recording area, which includes a definite defect management area to record therein defect management information of said data area, to record therein information for controlling at least one of operations of recording and reading in said data area **(paragraph 1 of page 1, discloses updating a "DMS")**;

(iii) and a shared area **("OSA1", in page 4),** to record therein evacuation data which is record data to be recorded at a position of a defect in said data area **(page 4 discloses that a defective clusters is recorded as a replacement cluster)** and to temporarily record therein the defect management information of said data **(page 4 discloses recording the address of a defective cluster in a user control block of the replacement cluster)**, wherein the defect management information includes (i) an evacuation source address which is an address of the position of the defect in the data area**(see "PSN of defective cluster")** and (ii) an evacuation destination address which is an address of a recording position of the evacuation data (**see "PSN of replacement cluster");**

Park fails to expressly teach that the disc structure is such that the shared area is disposed between said control information recording area and said data area. Park also fails to expressly disclose a recording/reproducing method, as claimed.

HWANG teaches that a write-one recording medium may be structured such that the shared area **("SPARE AREA 2" in figures 4 and 6)** is disposed between said control information recording area **("DMA3" or "DMA4" in figures 4 and 6**) and said data area **("USER DATA AREA" in figures 4 and 6);**

said recording apparatus and method comprising:

a first recording device and operating process for recording the record data into said data area **(parts and elements operating to perform said function are illustrated in figure 9);**

and a second recording device and operating process for recording the evacuation data and the defect management information into said shared area **(parts and elements operating to perform said function are illustrated in figure 9)**,

It would have been obvious for one of ordinary skill in the art at the time of the invention to provide a plurality of definite defect management areas, wherein at least one DMA is located at each opposing end of the disc (see, HWANG). Therefore, when recently updated defect management information is recorded in the multiple DMA locations of the disc, the DMA data is better prevented from becoming unusable due to disc defects.

Park, modified by Hwang, fails to teach that the defect management area further includes a start and end address of the data area, and a size of at least one shared area.

ITO teaches, in figure 5, that the defect management area (12) of a disc may include a disc definition structure (20). Ito further teaches that the disc definition structure may include information comprising the size of the shared area, as well as size and address information pertaining to the user data area (see paragraphs [0079], [0102], Figure 7 and Figure 13).

It would have been obvious for one of ordinary skill in the art at the time of the invention to incorporate further data into the DMA of Park, said further data pertaining to the size of the shared area, as well as size and address information related to the user data area, for the purpose of better ensuring the reliability of data detection.

Regarding claim 21,

Park teaches that the second recording device (see figure 11) records evacuation data is continuously recorded and the defect management information continuously, in the shared area **(page 4 teaches that the evacuation data is recorded in a "replacement cluster", while the defect management information are recorded in "Access blocks" of respective clusters. The repeated recordation of replacement clusters and "Access blocks" when a defective cluster is determined, is interpreted as corresponding to "continuously recorded" as claimed broadly claimed).**

Regarding claim 22,

Park teaches that the second recording device uses a border point of a data-recorded-area and a data-unrecorded-area in the shared area as a start point, to record

the evacuation data and defect management data into a data-unrecorded-area **(page 4 discloses the evacuation data is recorded in consecutive replacement clusters, the last replacement cluster recording corresponding to the border point, as claimed).**

Regarding claims 24, 26 and 28,

Park teaches a reproducing apparatus, its associated method of operating, as well as a computer program product for embodying a program of instructions executable by a computer and for a reproducing apparatus, wherein the apparatus is for reproducing record data from a write-once-type recording medium **(page 1)** and comprises:

(i) a data area to record therein the record data **(page 4 discloses recording in a replacement cluster instead of a defective cluster. Said "defective cluster" is interpreted as evidence of a data area in the disc of Park)**;

(ii) a control information recording area, which includes a definite defect management area to record therein defect management information of said data area, to record therein information for controlling at least one of operations of recording and reading in said data area **(paragraph 1 of page 1, discloses updating a "DMS")**;

(iii) and a shared area **("OSA1", in page 4),** to record therein evacuation data which is record data to be recorded at a position of a defect in said data area **(page 4 discloses that a defective clusters is recorded as a replacement cluster)** and to temporarily record therein the defect management information of said data **(page 4**

discloses recording the address of a defective cluster in a user control block of the replacement cluster), wherein the defect management information includes (i) an evacuation source address which is an address of the position of the defect in the data area**(see "PSN of defective cluster")** and (ii) an evacuation destination address which is an address of a recording position of the evacuation data (**see "PSN of replacement cluster");**

Park fails to expressly teach that the disc structure is such that the shared area is disposed between said control information recording area and said data area. Park also fails to expressly disclose a recording/reproducing method, as claimed.

HWANG teaches that a write-one recording medium may be structured such that the shared area **("SPARE AREA 2" in figures 4 and 6)** is disposed between said control information recording area **("DMA3" or "DMA4" in figures 4 and 6**) and said data area **("USER DATA AREA" in figures 4 and 6);**

said reproducing apparatus and method comprising:

a reading device and reading process for reading the defect management information in said shared area **(parts and elements operating to perform said function are illustrated in figure 9)**,

and a reproducing device and reproducing process for reproducing the record data in said data area or the evacuation data in said shared area, on the basis of the defect management information **(parts and elements operating to perform said function are illustrated in figure 9)**,

It would have been obvious for one of ordinary skill in the art at the time of the invention to provide a plurality of definite defect management areas, wherein at least one DMA is located at each opposing end of the disc (see, HWANG). Therefore, when recently updated defect management information is recorded in the multiple DMA locations of the disc, the DMA data is better prevented from becoming unusable due to disc defects.

Park, modified by Hwang, fails to teach that the defect management area further includes a start and end address of the data area, and a size of at least one shared area.

ITO teaches, in figure 5, that the defect management area (12) of a disc may include a disc definition structure (20). Ito further teaches that the disc definition structure may include information comprising the size of the shared area, as well as size and address information pertaining to the user data area (see paragraphs [0079], [0102], Figure 7 and Figure 13).

It would have been obvious for one of ordinary skill in the art at the time of the invention to incorporate further data into the DMA of Park, said further data pertaining to the size of the shared area, as well as size and address information related to the user data area, for the purpose of better ensuring the reliability of data detection.

Regarding claim 25,

Park teaches that the reading device searches for a border point of a data-recorded-area and a data-unrecorded-area in the shared area, to read the defect

management information **(The "OSAO" includes a "TDMA", as is well understood in the art, said area (defect management information) corresponding to "border point").**

Response to Arguments

3. Applicant's arguments with respect to claims rejected in the Official Action mailed on 2/03/2010, have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DIONNE H. PENDLETON whose telephone number is (571)272-7497. The examiner can normally be reached on 10:30-7:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne Young can be reached on 571-272-7582. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Dionne H Pendleton/
Examiner, Art Unit 2627

/Wayne Young/
Supervisory Patent Examiner, Art Unit 2627